CLAIMS

What is claimed is:

1. A method for achieving high bit densities in a direct-sequence CDMA spread spectrum communication system, the method comprising the steps of:

storing a table of orthogonal pseudo-noise codes;

partitioning the table of orthogonal pseudo-noise codes into at least one codebook;

assigning a first codebook to a first user;

spreading a first information signal for the first user with a first pseudo-noise code contained within the first codebook.

2. The method of claim 1 wherein the location of the first pseudo-noise code within the first codebook corresponds to the value of the first information signal for the first user.

3. The method of claim 1 further comprising the step of:

spreading a second information signal for the first user with a second pseudo-noise code contained within the first codebook.

4. The method of claim 3 wherein the location of the second pseudo-noise code within the first codebook corresponds to the value of the second information signal for the first user.

Sub C3

5. The method of claim 1 further comprising the steps of:

assigning a second codebook to a second user;

spreading a first information signal for the second user with a first pseudo-noise code contained within the second codebook.

6. The method of claim 5 further comprising the step of:

spreading a second information signal for the second user with a second pseudo-noise code contained within the second codebook.

7. The method of claim 6 wherein the location of the second pseudo-noise code within the second codebook corresponds to the value of the second information signal for the second user.

Sub C4

8. The method of claim 1 further comprising the step of:

despreading the first information signal for the first user with the first pseudo-noise code within the first codebook.

9. The method of claim 8 wherein the location of the first pseudo-noise code within the first codebook corresponds to the value of the first information signal.

10. The method of claim 1 wherein the partitioning the table of the orthogonal pseudo-noise codes further comprises the step of:

partitioning the table into codebooks such that there are 2^n entries, where n is a whole number.

11. The method of claim 1 wherein a single pseudo-noise code is capable of transmitting multiple bits of information signal.